

FOY, A.M., prof.; ANISIMOVA, M.I., dotsent

Problem of the most effective methods for controlling asphyxia in the newborn. Akush. i gin. no.6:20-25 N-D '63. (MIRA 17:12)

1. Iz akushersko-ginekologicheskoy kliniki lechebnogo fakul'teta (zav. - prof. A.M.Foy) Saratovskogo meditsinskogo instituta.

FOY, A.M., prof. (Saratov)

Some problems in modern obstetrical anesthesia. Akush. i gin.  
no.1:9-15 '65. (MIRA 18:10)

FOY, L. K.

Novocaine in the treatment of hypertension; preliminary communication. Klin. med., Moskva 30 no.4:79-82 Apr 1952, (CML 22:2)

1. Leningrad.

FOY, L.K., polkovnik med. sluzhby, doktor med. nauk

Vasorrhaphy in infected tissue; experimental observations. Voen. med.  
zhur. no.2:30-32 F '57 (MIRA 12:7)

(BLOOD VESSELS, surgery,

suture of vessels in exper. infected wds. (Rus))

(WOUNDS AND INJURIES, experimental,

suture of blood vessels in infected wds. (Rus))

FOY, L. K. *and others*

"The Effectiveness of Neuroplegics and Hypothermia in the  
Prophylaxis and Treatment of Traumatic Shock in Irradiated Animals."

<sup>7</sup>  
Voyenno-Meditsinskiv Zhurnal, No. 12, December 1961, pp 62-73

D'YACHENKO, P.K.; KATAYEVA, G.A.; POMOSOV, D.V.; RYAZHKIN, G.A.; STENGANTSEV,  
V.I.; FOY, L.K.; CHUDAKOV, V.G.; YANCHUR, N.M.

Effectiveness of neuroplegic substances and hypothermia in the  
prevention and treatment of traumatic shock in irradiated animals.  
Voen.-med. zhur. no.7:86 J1 '61. (MIRA 15:1)  
(AUTONOMIC DRUGS) (HYPOTHERMIA)  
(SHOCK) (RADIATION SICKNESS)

GUSSI, G.; POYENARU, V.; FOYASH, K.

A direct method related to a Cauchy problem for solving a  
quasilinear hyperbolic equation with two independent variables.

Dokl. AN SSSR 112 no.3:381-382 Ja '57.

(MLRA 10:4)

1. Predstavleno akademikom S.L. Sobolevyn.  
(Functions of complex variables)  
(Differential equations, Partial)

AUTHOR: <sup>[K]</sup> Foyush, Ch., Guasi, G., Poyenaru, V. 20-119-5-11/59  
 TITLE: Generalized Solutions of a Quasilinear Differential Equation in the Banach Space (Obobshchennyye resheniya kvasilineynogo differentsial'nogo uravneniya v banakhovom prostranstve)  
 PERIODICAL: Doklady Akademii Nauk <sup>SSSR</sup>, 1958, Vol 119, Nr 5. pp 884-887 (USSR)  
 ABSTRACT: In the Banach space X the differential equations

$$(1) \quad \frac{dx}{dt} = A(t)x$$

and

$$(2) \quad \frac{dx}{dt} = A(t)x + f(t,x)$$

are considered, where  $A(t)$  are linear closed operators with regions of definition being dense in X. The authors investigate the existence and uniqueness of the solution of the Cauchy problem (in the generalized sense) for (1) and (2) respectively. According to the assumptions for  $A(t)$  and  $f(t,x)$  different assertions are obtained. The results partially overlap with the results of Kato [Ref 1] and Krasnosel'skiy [Ref 5,8,9]. There are 10 references, 6 of which are Soviet, 2 Japanese, 1 American, 1 German.

Card 1/2



Generalized Solutions of a Quasilinear Differential Equation in the Banach Space 20-119-5-11/59

PRESENTED: November 26, 1957, by S.L. Sobolev, Academician

SUBMITTED: October 7, 1957

Card 2/2

FOYGEL<sup>1</sup>, D., inzh.

Pulsating supports for pipelines. Na stroi. Ros. 3 no.10:29  
0 '62. (MIRA 16:6)

(No subject headings)

MILLER, A.F. (g.Vorkuta); FOYCHEL', D.I. (g.Vorkuta)

Laying pipes in water-supply networks of city blocks side by side with heating conduits. Vod.i san.tekh. no.6:33-34  
Je '60. (MIRA 13:6)  
(Water-supply engineering, Low temperature)

BAKALOV, S.A.; BELOUSOV, V.P.; BRATSEV, L.A.; VODOLAZKIN, V.M.;  
YEROSHENKO, V.N.; ZHUKOV, V.F.; LUBAN, S.A.; MARKIZOV, L.P.;  
NADEZHGIN, A.V.; NOVIKOV, F.Ya.; PONOMAREV, V.D.; POTRASHKOV,  
G.D.; ROZHDESTVENSKIY, S.I.; TROFIMOV, S.V.; FEL'DMAN, I.R.;  
FOYGEL', D.O.; KHRUSTALEV, L.N.; CHURUKSAYEV, I.I.;  
KONDRAT'YEVA, V.I., red.

[Theory and practice in the study of frozen ground in construction] Teoriia i praktika merzlotovedeniia v stroitel'stve. Moskva, Nauka, 1965. 187 p. (MIRA 18:4)

1. Moscow. Nauchno-issledovatel'skiy institut osnovaniy i podzemnykh sooruzheniy. Severnoye otdeleniye.

FOYGEL, G. A., ROMANYUK, R. S., SHVARTSMAN, Ye. L., and DUBOVYY, Ye. D.

"Experience of Using Leukocyte Suspension in Preventing Roentgenological Leukopenia," by Prof Ye. D. Dubovyy; Ye. L. Shvartsman, Candidate of Medical Sciences; G. A. Foygel' and R. S. Romanyuk, Chair of Roentgenology and Radiology (head, Prof Ye. D. Dubovyy\*), Odessa Medical Institute imeni N. I. Pirogov (director, Prof I. Ya. Deyneka), and Odesskaya Oblast Station for Blood Transfusion (head, R. S. Romanyuk), Vestnik Rentgenologii i Radiologii, Vol 31, No 2, Mar/Apr 56, pp 25-28 ✓

This article discusses the special importance of administering leukocyte suspension in treating patients under X-ray therapy for malignant neoplasms. The leukocyte suspension was prepared from preserved blood by drawing off the plasma and then removing the whitish layer of leukocytes. At first leukocyte suspension was administered intravenously in 10-20 ml quantities, but later intramuscular injections also proved beneficial.

Thirty-seven patients were treated with 1-10 such transfusions. Preliminary positive results indicate the advisability of additional research for the use of leukocyte suspension in preventing roentgenological leukopenia.

Sum 1258

FOYCEL', G.A.; LEHRER, Kh.S.; ROMANYUK, R.S.

Method of drying plasma in bottles. Probl.gemat. 1 perel.krovi  
4 no.3:61 Mr '59. (MIRA 12:6)

1. Iz Odesskoy oblastnoy stantsii perelivaniya krovi (dir.  
R.S.Romanyuk).  
(PLASMA  
method of drying in bottles (Rus))

DUBOVYI, Ye.D.; SHVARTSMAN, Ye.L.; FOYCEL', G.A.; ROMANYUK, R.S.

Use of leukocyte suspensions in radiotherapy for malignant tumors.

Vop. onk. 7 no.1:19-25 '61.

(RADIATION PROTECTION)  
(LEUKOCYTES)

(CANCER)

(MIRA 14:2)

(BLOOD—TRANSFUSION)

LERNER, Kh.S.; ROMANYUK, R.S.; LISNEVSKAYA, T.I.; FOYCEL', G.A.

Use of A.N.Filatov's serum in diseases of the nervous system. Trudy  
Kiev. nauch.-issl. inst. perel. krovi i neotlozh. khir. 3:27-29 '61.  
(MIRA 17:10)

1. Odesskaya oblastnaya stantsiya perelivaniya krovi i kafedra nervnykh  
bolezney Odesskogo meditsinskogo instituta.



AUTHORS:

Foygel', L. A., Engineer, Shekhter, Z. Kh., Engineer, SOV/119-59-4-7/18  
Elyukim, S. V., Engineer

TITLE:

Investigation of the Dependence of the Elastic Properties of  
Helical Tubular Springs Upon Geometrical Configuration  
(Issledovaniye zavisimosti uprugikh kharakteristik vitykh  
trubchatykh pruzhin ot geometricheskikh razmerov)

PERIODICAL:

Priborostroyeniye, 1959, Nr 4, pp 15-17 (USSR)

ABSTRACT:

The authors investigated the elastic properties of helical tubular springs as dependent upon the wall thickness and the pitch. The springs all had the same profile and were made of stainless steel 4 Kh 13. The methods of measuring the thickness and the pitch of the springs are discussed. The sensitivity is defined as the ratio of twisting angle and measured pressure:  $\alpha = \phi/P$ . In a figure a total view of the device for the measurement of the twisting angle of the springs is presented. This device cannot only be used for the examination of test springs, but may also be employed in the checking of mass-produced springs. More than 100 springs with differing pitch and thickness were tested. In five diagrams the sensitivity versus pitch

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Investigation of the Dependence of the Elastic Properties of Helical Tubular  
Springs Upon Geometrical Configuration SOV/119-59-4-7/18

function is given for constant thickness. The curves all exhibit the same character. It appears that the sensitivity exhibits a maximum for certain pitch. The deviation of the experimental results is much greater than would be expected due to the propagation of the error in measuring the pressure and the twisting angle. It is assumed that it must be ascribed to different wall thickness, to irregular pitch and to certain irregularities in the shape of the spring. The diagrams mentioned provided the information required for a determination of the quantities which must be known for the investigation and the production of springs. The characteristics of such springs are in general non-linear. As yet, not all of the causes for this non-linearity are known, the main origin, however, being considered the dependence of the sensitivity upon the pitch. Finally the degree of non-linearity is calculated under simplifying assumptions. The results of the calculations give a satisfactory agreement with the experimental results. There are 11 figures and 1 table.

Card 2/2

GLUKHAREV, A.I., inzh. (Engel's); FOYGEL', L.A. (Engel's); GEL'MAN,  
N.B., inzh. (Engel's)

Calculation of current in an R-L circuit with half-wave  
rectification. *Elektrichestvo* no.5:58-60 My '60.  
(MIRA 13:9)

(Electric current rectifiers)  
(Electronic circuits)

ACC NR: AP7009097

SOURCE CODE: UR/0413/67/000/003/0070/0070

INVENTOR: Glukharev, A. I.; Foygel', L. A.; Sushinkin, Ye. I.; Gerashchenko, V. A.

ORG: None

TITLE: An oxygen flow indicator. Class 30, No. 191046

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1967, 70

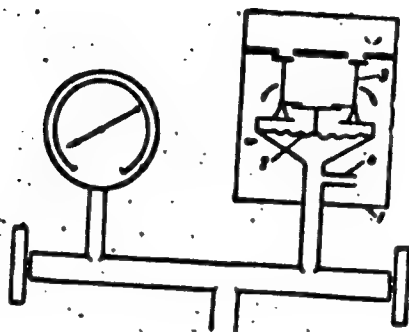
TOPIC TAGS: flow meter, oxygen, medical equipment

ABSTRACT: This Author's Certificate introduces an oxygen flow indicator containing a housing with a diaphragm which interacts with indicator flags. The instrument may be used at relatively high oxygen pressures. The cavities above and below the diaphragm are connected through a hydraulic resistor which may be made in the form of a tube with a small inside diameter.

Card 1/2

UDC: 612.22.02-087

ACC NR: AP7009097



1—housing; 2—diaphragm; 3—flag; 4—hydraulic resistor

SUB CODE: 14,06 SUBM DATE: 15Mar65

Card 2/2

S/242/62/000/008/001/001  
I053/I215

**AUTHORS** Khaydarov, A. Kh., Prof. Cand. Med. Sc.; Galayko, S. M., Levin, S. I., and Foygel'man, A. Ya.

**TITLE:** Homo-autoplastic surgery in burns of irradiated animals

**PERIODICAL** Meditsinskiy zhurnal uzbekistana, no. 8, 1962, 55-57

**TEXT:** The biologic principles of the successful transplantation of homografts are not yet understood. Twenty six rabbits of about the same weight and age were subjected to charring burns on their backs (9 cm<sup>2</sup>). The necrotic scab was removed at regular time intervals and an auto- or homograft was immediately transplanted into the opened wound. Twenty rabbits were subjected to repeated X-irradiation. (2 × 600r). Penetrating radiation affects the recipient of the homograft, which, when transplanted during the height of radiation sickness dissolved rapidly. The healing process of autografts is slower in the irradiated animals than in the controls. Homografts transplanted from irradiated animals, 7 days after irradiation with 600 r, to healthy animals, remained alive for a long time and the epithelisation of the wound occurred after 4-5 weeks.

**ASSOCIATION:** Kafedra gospital'noy khirurgii Samarkandskogo gosudarstvennogo meditsinskogo instituta (Chair of Hospital Surgery State Institute of Medicine, Samarkand)

Card 1/1

RASULOV, Kh.Kh., ispolnyayushchiy obyazannosti dotsenta; FOYGEL'MAN,  
A.Ya., assistant

Method of vasography in vascular diseases of the extremities.  
Nauch. trudy SamMI 22:97-99 '63. (MIRA 17:9)

1. Iz kliniki gospi'tal'noy khirurgii Samarkandskogo meditsinskogo  
instituta.

FOYGEL'MAN, Grigoriy Abramovich; SKVORTSOV, G.D., inzh.,  
retsenzent; IONOV, P.M., inzh., red.

[Album of drawings of universal dies, die blocks and units  
for sheet-metal work] Al'bom konstruksii universal'nykh  
shtampov, blokov i uzlov dlia kholodnoi shtampovki. Mo-  
skva, Mashinostroenie, 1965. 120 p. (MIRA 18:11)



FOYGEL'MAN, L. [Foihel'man, L.], inzh.; LAKODEY, F., inzh.

Attachment to the SK-3 combine for picking up chaff. Mekh. sil'.  
hosp. 12 no. 5;18 My '61. (MIRA 14:5)  
(Combines (Agricultural machinery))

FOYGTLENDER, O.

Calcining Method for Increased Clinker Production in the Cement Industry

TEKHNIKA PROMSHLENNOSTI (Heavy Industry) Issue #8;50; August 1955

NOVOZHILOV, Boris Vasil'yevich, kand. fiz.-matem. nauk; POYNEOV, I.B., red.

[Monte Carlo method] Metod Monte-Karlo. Moskva, Znanie, 1966. 46 p. (Novoe v zhizni, nauke, tekhnike. IX Seriya: Fizika, Matematika, Astronomiya, no.3) (MIRA 19:1)

FOYT, A.P.

Building iron-ore enterprises in Kuznetsk Basin. Prom. stroi. 37  
no.4:21-23 Ap '59. (MIRA 12:6)

1.Glavnyy inzhener tresta Kuznetskrudstroy.  
(Kuznetsk Basin--Iron mines and mining)

**AUTHOR:** SAMIN, P.I., CHERNYAVSKAYA, L.F., FOYT, L.F. 32-6-17/54  
**TITLE:** On the Method of Determining the Corrosion Properties of Lubricating Oils. (K metodike opredeleniya korrozijnosti masel, Russian)  
**PERIODICAL:** Zavodskaya Laboratoriya, 1957, Vol 23, Nr 6, pp 696-697 (U.S.S.R.)

**ABSTRACT:** The most used method of determining the corrosion properties of motor oils is that which was developed by YU. H. PINKIEWICH (Host 5162-49) and improved by K.S. RAMAJ; on the basis of this method a special apparatus was constructed which consisted of a test tube, a cooling device for the oil vapors, a reducing device of 170 mm height, a thermostat with oil, and plates of 500 mm length fastened to steel wire. The metal plate has a temperature of 140° when corrosion is tested, and temperature of the air above the oil layer is the same. The plate moves periodically in a test tube. The entire test takes 25 - 30 hours. - In order to reduce the time of the test to 5-10 hours, oil and air are heated to a temperature of 150-160°. Results obtained after a 25-30 hours' test: Corrosion for machine oil: 62 g/m<sup>2</sup>, AO-5-oil 74.5 g/m<sup>2</sup>.  
**ASSOCIATION:** Mineral Oil Institute of the Academy of Science of the U.S.S.R.

**PRESENTED BY:**

**SUBMITTED:**

**AVAILABLE:** Library of Congress

Card 1/1

S/065/61/000/004/011/011  
E194/E284

AUTHORS: Chernyavskaya, L. F. and Foyt, I. F.  
TITLE: A Comparison of Various Methods of Determining the  
Corrosivity of Engine Lubricants  
PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 4,  
pp. 70-72

TEXT: The corrosivity of engine lubricants is at present  
determined by the method of Yu. A. Pinkevich (ГОСТ 5162-49  
(GOST 5162-49)) and the НАМИ (NAMI) method of determining the  
potential corrosivity ГОСТ 8245-56 (GOST 8245-56) which was  
developed by K. S. Ramay. In both methods the corrosivity is  
expressed in terms of loss of weight ( $\text{g/m}^2$ ) of lead plates exposed  
periodically to the action of oil and air. In the first method  
the air temperature is lower than the oil temperature ( $140^\circ\text{C}$ ) and  
in the second method the oil and air are at the same temperature  
( $140^\circ\text{C}$ ). In both methods during the test the oil is oxidized  
by oxygen of the air and the oxidation products are the main  
cause of the metal corrosion. The present work was undertaken to  
compare the two methods and to explore the possibilities of using

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S/065/61/000/004/011/011  
E194/E284

# A Comparison of Various Methods of Determining the Corrosivity of Engine Lubricants

the NAMI method to assess the anti-corrosion properties of additives. The tests were made on machine oil grade **СУ** (SU), engine oils Avtol-10 and **АС-5** (AS-5) at temperatures of 140 and 150°C. The corrosivity was measured after 5, 10, 15, 20 and 25 hours. The results of determination of potential corrosivity of oil at 140 and 150°C are given in Fig. 1. In this figure the corrosivity in g/m<sup>2</sup> is plotted on the y axis, and the time in hours on the x axis, the white circles correspond to 140°C and the black to 150°C. Curve 1 corresponds to machine oil grade **СУ** (SU), curve 2 to Avtol-10 and curve 3 to AS-5. The results show that the NAMI method give results which are close to those obtained by the Pinkevich method and the test takes only ten hours instead of 50. In the NAMI tests oxidation is more rapid because there is better contact between oil and air. The NAMI method has also been proposed to determine the actual corrosivity of lubricants. In determining the actual corrosivity the formation of corrosive compounds is practically excluded, the lead sheet and oil are

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S/065/61/000/004/011/011  
E194/E284

# A Comparison of Various Methods of Determining the Corrosivity of Engine Lubricants

heated to a temperature of 140°C in a closed vessel for thirty minutes and consequently corrosion is mainly due to corrosive substances already present in the oil. The results are plotted in Fig. 2 in which the y axis gives corrosivity mg/10 cm<sup>2</sup> and the x axis acid number mg KOH/g Curve 1 relates to machine oil grade SU, Curve 2 to the same plus Paranox, Curve 3 to the same plus additive ЦИАТИМ-339(TsIATIM-339), Curve 4 to the same plus АЗНМ-4(AzNII-4) and Curve 5 to the same plus additive АФ-1 (DF-1) It will be seen that for the given concentrations of oleic acid in the machine oil grade SU all the additives reduce the corrosive tendency. The curves for the oils with various additives are of different shape and differ from the curve of the straight oil. It is concluded that the method recommended may be used not only to characterize the actual corrosivity of oils but also the influence of various additives on the corrosivity. There are 2 figures and 2 tables.

ASSOCIATION: In-t neftekhimicheskogo sinteza AN SSSR  
(Institute of Petrochemical Synthesis AS USSR)

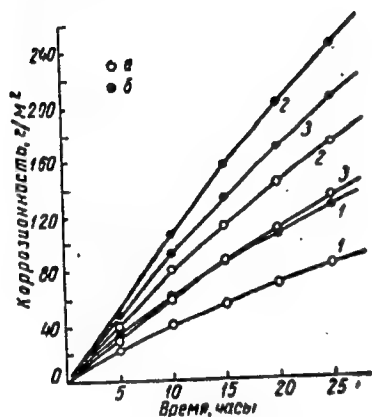
Card 3/4



S/065/61/000/004/011/011  
E194/E284

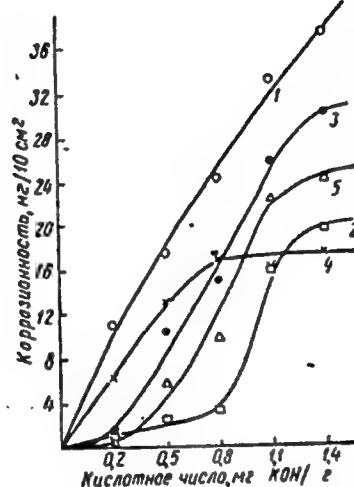
# A Comparison of Various Methods of Determining the Corrosivity of Engine Lubricants

Fig. 1



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Fig. 2



8(6)

SOV/112-59-2-2279

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2, p 3 (USSR)

AUTHOR: Fozilov, Kh. F., and Khamidov, A. Kh.

TITLE: Power Sources in Uzbekistan and Ways of Developing Them  
(Energetika Uzbekistana i puti yeye razvitiya)

PERIODICAL: Fan va turmush, 1957, Nr 9, pp -15 (original in Uzbek)

ABSTRACT: Bibliographic entry.

Card 1/1

FRACHONICZ, A.

FRACHONICZ, A. Methods of patternmaking. p. 284. Vol. 7, no. 11, Nov. 1956.  
GDZIEZ. Lodz, Poland.

SOURCE: East European Accessions List (EEAL) Vol. 6, no. 4--April 1957

WIDAL, Jozef; FRYSKI, Mieczyslaw; GORSKI, Ryszard

Reliability and stability tests of ceramic condensers. Przegl  
elektroniki 6 no.2:98-102 '65.

1. Institute of Radio Ceramics, Warsaw. Submitted December 22,  
1964.

FRACKI, Mieczyslaw

Results of investigations on the stability and reliability  
of K.F.P. ferroelectric capacitors. Przegl elektroniki  
4 no. 10/11:629-631 O-N '63.

1. Zaklady Ceramiki Radiowej, Warszawa.

FRACKIEWICZ, A.

Tomasi W., Frackiewicz A., Sanchez M. Investigation of the Method  
of Using Powder Electrode.

541.135.5.09

„Badania nad metodą posługiwania się elektrodami proszkowymi”.  
Przemysł Chemiczny, No. 9, 1955, pp. 492—493. 1 fig., 2 tabs.

Investigations over the best method of differentiating disintegrated substances by using powder electrode, the usefulness of various solutions of electrolyte, of different leading out electrodes, and of the degree of dipping. It was found that: 1) good results can be obtained by applying aqueous and ethanol solutions of potassium chloride and sodium chloride; 2) the second type electrode of simplified construction can be used conveniently in some systems; and 3) the extent to which the leading out electrode is surrounded with the disintegrated phase has no influence on the results of the potentiometric measurement.

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A. FRACKIEWICZ

3

Potentiometric investigation of one of the Krause catalysts. A. Frackiewicz (Dept. Phys. Chem., Warsaw). *Russ. J. Chem.* 12:537, 41-2 (1966) (English summary). — The e.m.f.s. of 2 cells consisting of a powder electrode of  $Zn(OH)_2$  (I) and a powder electrode of  $Zn(OH)_2/Co^{++}$  (Krause catalyst) (II), resp., in 0.5M aq. KCl and a satd. calomel electrode in each, were measured in parallel. The  $Co^{++}$  had no effect on the e.m.f., which was also independent of the

presence of the nonmetallic powdered phase while using Ag/AgCl as the reference electrode. The difference in the av. e.m.f. between the cells consisting of II and I was greatest in a standard EtOH soln. (0.5 g. KCl/l. 96% EtOH), and the reproducibility best 4 hrs. after setting up. The difference was 71 mv. for 1 mg.  $Co^{++}$  present in II and 1 mv. for 0.008 mg.  $Co^{++}$ . The av. reproducibility of the potential of the powder electrode was  $\pm 13$  mv. The method is sensitive to  $3 \times 10^{-3}$  g.  $Co^{++}$  adsorbed on the electrode.  $Co^{++}$  was adsorbed by addn. of 0.2 ml. aq.  $Co(NO_3)_2$  soln. of a desired concn. to the sample contg.  $Zn(OH)_2$ . Pure distd.  $H_2O$  (0.2 ml.) was added to I. Deins. were carried out at 1 mv. accuracy by using the PHM3h type lamp potentiometer. Mordoch Medwed


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VI

E/6.4/61/040/001/002/007  
A221/A126AUTHOR: Frackiewicz, Andrzej

TITLE: Studies on thermodynamics of methanol decomposition and on catalyst of this reaction - II. Kinetic and potentiometric investigation of methanol decomposition catalysts

PERIODICAL: Przemysł Chemiczny, v. 40, no. 1, 1961, 11-15

TEXT: In this article the author describes his investigations a) on ZnO used as catalyst for methanol decomposition at various temperatures and on the copper catalyst, developed and applied in methanol synthesis by Prof. Biłasiak, b) on how the method of catalyst preparations affects their electrode potential. This work is the continuation of an earlier research. Kinetic investigations were carried out in a tubular reactor placed in an electrically heated oven. Liquid methanol was vaporized in a preheater at a rate of 0.3 ml/min. and the vapor passes through 6 cm<sup>3</sup> (1.5 g) of ZnO catalyst, or 7 cm<sup>3</sup> (10 g) in case of copper catalyst. Non-decomposed methanol was recovered by condensation, while gases obtained by decomposition of methanol in accordance with the equation  $\text{CH}_3\text{OH} = \text{CO} + 2 \text{H}_2$ , were measured by a gas meter. The degree of decomposition



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P.014/61/040/001/002/007

A221/A126

Studies on thermodynamics of methanol ...

x - was calculated from the formula  $x = \frac{V}{1.782 V_0}$  (1), where  $V_0$  is the quantity of methanol used for the experiment in ml,  $V$  is the volume of gas emitted; 1 ml of methanol when decomposed produces 1.782 l of gas ( $H_2 + CO$ ). The catalyst was prepared by heating basic zinc carbonate for two hours at  $395^\circ C$ . Copper catalyst was prepared from crude catalyst obtained from the Zakłady Azotowe im. F. Dzierżyńskiego (Nitrogen Products Plant) in Tarnów, by reduction during 2 hours with hydrogen at  $170^\circ C$ . The crude catalyst was composed of simultaneously precipitated copper, zinc and aluminum oxides (49.5% Cu, 20.4% Zn, 5.1% Al). The activation energy E and the frequency coefficient A in the Arrhenius equation  $K = A e^{-E/RT}$  (6) calculated for methanol decomposition on ZnO are:  $A = 1.9 \times 10^5 \text{ mol} \times \text{hr}^{-1} \text{g}^{-1}$ ;  $E = 18,000 \text{ cal} \times \text{mol}^{-1}$ , and for decomposition on copper catalyst  $A = 2.8 \times 10^3 \text{ mol} \times \text{hr}^{-1} \text{g}^{-1} \text{Atm}^{-1}$ ;  $E = 11,800 \text{ cal} \times \text{mol}^{-1}$ . These calculations were based on the following facts: 1) the reaction was carried out in isothermic and isobaric conditions, therefore the condition  $T = \text{constant}$  was to a great degree fulfilled, 2) the rate of reverse reaction can be ignored, because at these temperatures reaction equilibrium is pushed in the direction of products formation, 3) the reaction speed does not depend on the reagents flow velocity. Potentiometric investigations: Catalysts used for methanol decomposition were examined potentiometrically in the powder electrode. Results for ZnO

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Studies on thermodynamics of methanol ...

F/04/6./040/001/002/007  
A221/A126

and for copper catalyst show that the catalyst potential after the reaction varies from the initial value, but there is no proof that it happens due to reaction temperature. The way how the ZnO catalyst is prepared does affect potentiometric properties of this catalyst. Potentiometric properties of copper catalyst are not affected by various reduction conditions. There are 2 figures, 7 tables and 13 references: 10 Soviet-bloc and 3 non-Soviet-bloc. The reference to the English-language-publication reads as follows: K. Frolich, M. R. Fenske, D. Quiggle, *En. Eng. Chem.* 20, 694 (1928).

ASSOCIATION: Katedra Chemii Fizycznej Politechniki Warszawskiej (Polytechnical Institute, Chair of Physical Chemistry) Warsaw.

SUBMITTED: July 15, 1960

Card 3/3

P/014/60/039/012/004/007  
A221/A126

AUTHOR: Frąckiewicz, Andrzej

TITLE: Studies on methanol decomposition and on the catalyst of this reaction. I. Thermodynamics of methanol decomposition

PERIODICAL: Przemysł Chemiczny, v. 39, no. 12, 1960, 752 - 756

TEXT: This is the first part of the series to follow. The author presents his theoretical investigations on the thermodynamics of secondary reactions which accompany the decomposition of methanol. The main reaction of methanol decomposition into hydrogen and carbon monoxide and its thermodynamics are well known. Less attention was paid to secondary reactions in which, along with hydrogen and carbon monoxide, certain quantities of methane, carbon dioxide, dimethyl ether, olefines, formaldehyde and methyl formate are formed as well. The last two compounds appear frequently on the catalyst containing zinc oxide or copper. According to Frolich (Ref. 2: K. Frolich, M. R. Fenske, D. Quiggle, Ind. Eng. Chem., 20, 694, 1928) and Dohse (Ref. 9: H. Dohse, Z. physik. Chem., 8B, 159, 1930) this reaction proceeds in two stages via formaldehyde, which can decompose into CO and hydro-

Card 1/2

Studies on methanol decomposition and on...

P/014/60/039/012/004/007  
A221/A126

gen and can form methyl formate:  $\text{CH}_3\text{OH} \rightarrow \text{H}_2 + \text{HCOH}$   $3\text{HCOH} \rightarrow \text{CO} + \text{H}_2 + \text{HCOOCH}_3$ . On the basis of Kirchoff's Law the author calculated the formulae indicating the dependence of several thermodynamic values characterizing the system, such as enthalpy, the logarithm of the equilibrium constant and the thermodynamic yield of the reaction examined, for the pressure  $p = 1$  atm. The author arrived at the conclusion that at low temperatures the amount of formaldehyde and methyl formate is negligible, but in higher temperatures the ratio of formaldehyde to the formate increases rapidly. There are 6 tables and 13 references: 5 Soviet-bloc and 8 non-Soviet-bloc. The most recent reference to English-language publication reads as follows: W. J. Thomas, S. Portalski, Ind. Eng. Chem., 50, 967 (1958).

ASSOCIATION: Katedra Chemii Fizycznej Politechniki Warszawskiej (Department of Physical Chemistry, Polytechnic), Warsaw

SUBMITTED: July 15, 1960

Card 2/2

MILEK, Ryszard; FRACKIEWICZ, Andrzej

Influence of the chemical reaction and adsorption of reagents upon the electrode potential and electric resistance of ferric oxide. *Przem chem* 41 no.5:239-242. My '62.

1. Katedra Chemii Fizycznej, Politechnika, Warszawa.

FRACKIEWICZ, J.

Case of acute hemolytic anemia due to sulfathiazole therapy. *Pediat.*  
*polaka* 24 no.10:913-917 Oct 50. (CML 20:5)

1. Of the Second Pediatric Clinic (Director--Prof.W.Szenajch,M.D.) of  
Warsaw Medical Academy.

FRACKIEWICZ, Lucyna, mgr

Labor absenteeism and possibilities of reducing it. Wlad hut  
16 no.1:26-29 Ja '60.

FRACKIEWICZ, Ryszard, mgr inż.

Continuous teeming of steel. Wiad hut 17 no.12:359-365 D '62.



FRACKIEWICZ, R.

TECHNOLOGY

PERIODICAL: HUTNIK, Vol. 25, no. 7/8, July/Aug. 1958.

FRACKIEWICZ, R. The diminution of the shrinkage cavity in steel ingots by applying exothermic forms.p. 262.

Monthly List of East European Accessions (EEAI) LC Vol. 8, No. 4 April, 1959, Unclass.

FRACKIEWICZ, Ryszard, mgr., inż.

Technical progress in cast steel foundries. Przegl techn  
81.no.18:15-16 '60.

SUCHY, B.; SAFINSKI, W.; FRACKIEWICZ, T.

Preventive application of chloromycetin in whooping cough in nurseries. *Pediat. polska* 29 no.5:533-537 May 54.

1. Z Kliniki Propedeutyki Pediatrii Akademii Medycznej w Warszawie.  
Kierownik: prof. dr med. W. Szańajch i z Kliniki Chorob Zakaźnych  
Wiek Dziecięcego Akademii Medycznej, Kierownik: prof. dr med.  
J. Bogdanowicz.

(WHOOPING COUGH, prevention and control,  
chloramphenicol)

(CHLORAMPHENICOL,  
prev. of whooping cough)

Frankiewicz, Tadeusz

✓ 5991\* (Polish) Magnetic Defect Detection, Defektoskopia  
magnetyczna, Tadeusz Frankiewicz, Wzrostek i Hrabowski,  
12, Nov. 1956, pp. 149-150  
Principles and methods of testing steel at low  
means. Areas of application, "wet" powder and  
methods, instruments used for tests, evaluating results

P/043/60/000/06/02/003

AUTHORS: Frackiewicz, Tadeusz, Master of Engineering and Chojkowski, Antoni,  
Master of Engineering

TITLE: Steel for Bearings §

PERIODICAL: Wiadomości Hutnicze, 1960, No. 6, pp. 177 - 181

TEXT: After a brief description of ball and roller bearings, the authors state that the production of bearings in Poland is a relatively new industry, having been started several years after the second World War. The Polish PN-53/H-84041 standard, which is similar to the Soviet GOST 801-47 standard, distinguishes 4 types of bearing steel (Table 1). Only 2 types are being produced, i.e. the EH15 and EH15SQ. The EH15, which is also cheap, is considered by Polish and other experts, including the Deutsche Edelstahlwerke (German Fine Steel Works) as being of very good quality with a high resistance to attrition. Its hardness degree is 65 HR<sub>c</sub>. The EH15SQ steel, designed for large bearings used in rolling stock, heavy machinery etc, differs from the EH15 steel only by its higher manganese content (1.10% as against 0.95%) and silicone content (0.65% as against 0.40%). The authors deal with the processing of bearing steel in general and describe the conventional casting, testing, etc, of such steel. The above-

Card 1/2

Steel for Bearings

P/043/50/000/06/02/003

mentioned Polish and Soviet standards include tables for testing the purity of steel, which are based on the Diergarten scale widely used in the West. The Polish PN-53/H-84041 standard has 4 tables for testing the content of steel, including the sulfide and oxide content. Since the globular impurities have not been taken into account the EH15S0 steel used for railroads has to be tested for other impurities, not only according to the Polish tables, but also to the more detailed Diergarten scale which takes into account also the non-metallic impurities contained in steel. This practice was enforced by the MPC instruction dated September 2, 1959. The PN-53/H-84041 standard distinguishes also 2 qualities of steel, i.e. quality I (meant for heavy-duty bearings) and quality II (for common bearings). Details of these two qualities of steel and their properties under various processing conditions are given in Table 2. In conclusion the authors state that there are 2 schools of thought in Poland regarding the quality control of bearing steel. One school represented by the mechanical engineering industry advocates a stricter control, while the other school, also widely spread in the West, strives for simplicity, faster production and less waste of time. There are 2 tables, 2 figures and 1 set of photos.

✓

Card 2/2

FRACKIEWICZ, Tadeusz, mgr inz.

Isotopic flaw detection. Wiad hut 15 no.9:274-280 S '64.

FRACKIEWICZ, Tadeusz, mgr inż.

Radioactive isotopes in the metallurgical industry. Wiad hut 15  
no.11:329-335 N '64.



FRACKOWIAK, A.

Poland /Chemical Technology. Chemical Products  
and Their Application

I-27

Wood chemistry products. Cellulose and its  
manufacture. Paper.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32668

Author : Frackowiak Alfred

Inst : Institute of the Industry of Bast Fibers

Title : Production of Furfural from Flax and Hemp  
Scutchings

Orig Pub: Prace Inst. przem. wlokien lykow., 1956, 4,  
No 1, 8-13

Abstract: A study of the influence of various factors  
(temperature, duration of hydrolysis and de-  
hydration, concentration of acid, amount of

Card 1/2

Poland /Chemical Technology. Chemical Products  
and Their Application

I-27

Wood chemistry products. Cellulose and its  
manufacture. Paper.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32668

separated distillate, pretreatment of material,  
quality and nature of the scutchings) on the  
yield of furfural.

Card 2/2

FRACKOWIAK, Alfred; LAWNICZAK, Maciej; NOWAK, Kazimierz

The influence of the hydrophobic impregnating substance GSE-10 on  
certain properties of boards made from shives. Przem drzew 12 no.11:  
8-9 '61.

(Woodwork) (Scales (Botany))

Category : POLAND/Optics - Physical optics

K-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2358

Author : Orabasz, Regina, Frackowiak, Danuta

Inst : Nicholas Copernicus Univ. Torun, Poland

Title : The Yield of Anti-Stokes Fluorescence of Very Viscous Dye Solutions.

Orig Pub : Acta phys. polon., 1955, 14, No 6, 447-454

Abstract : The relative yield  $\eta$  of the fluorescence of solution of uranine ( $1.6 \times 10^{-4}$  g/cm<sup>3</sup>) in glycerine and of fluoresceine (approx.  $1.44 \times 10^{-4}$  g/g) in glass-like glucose were measured as functions of the wavelength  $\lambda$  of the exciting light. In the former case one observes a decrease in  $\eta$  with increasing  $\lambda$  in the anti-Stokes excitation region. In the latter case, the yield remains constant up to 5760 Å. This is interpreted from the point of view of the Yablonski hypothesis that the anti-Stokes reduction in  $\eta$  is caused by the absorption of non-luminescent dimers. It is proposed that the dimers broke up into monomers in the very viscous glucose solutions, which were at a high temperature (approximately 160°) in their initial stage of preparation. Owing to the high viscosity of the solution, the dimers did not have a chance to be formed again.

Card : 1/1



POLAND/Optics - Luminescence

K-6

Abs Jour : Ref Zhur - Fizika, No 8, 1958, No 19054

Author : Bauer R., ~~Frankowski D.~~

Inst : Nicholas Copernicus University, Torun, Poland

Title : A Method of Accurate Determination of the Relative Yield of the Fluorescence of Solutions.

Orig Pub : Bull. Acad. polon. sci., 1957, cl. 3, 5, No 7, 729-732

Abstract : The method proposed can be used for the measurement of the yield ratios of fluorescence for one and the same dye in two different solvents or for the determination of the relative yields of two different dyes, if the emission bands lie in neighboring regions of the spectrum. The fluorescent light of solutions, excited by means of monochromatic radiation, the liquid being poured in vessels of identical form and size, is recorded with the aid of a photomultiplier with antimony-caesium photocathode, which can be located in two positions. In the first position one measures the absorption of the investigated solution, the concentration of the standard solution at which

Card : 1/2

FRACKOWIAK, D.

POLAND/Physical Chemistry. Molecule. Chemical Bond.

D-4

Abs Jour: R f Zhur-Khim., No 13, 1958, 42272.

Author : ~~Frackowiak, D.~~

Inst : Polish Academy of Sciences.

Title : On the Fluorescence Yield of Organophosphors.

Orig Pub: Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 10,  
991-995,

Abstract: It is noted that in the case of vitreous solutions of fluorescein in glucose the shape of the band of absorption and of fluorescence as well as the configuration of the curve of fluorescence yield as a function of wave-length of the exciting light depend to an equal extent on concentration of solution and on method of its preparation (temperature of boiling, method of cooling). The author endeavors to explain

Card : 1/2

POLAND/Optics - Physical Optics.

K

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28454  
 Author : Frackowiak, D., Korbitt, L., Korbitt, T.  
 Inst : Nicholas Copernicus University, Torun, Poland  
 Title : Fluorescence of Solutions of Eosine in Glucose  
 Orig Pub : Bull. Acad. polon. sci. Ser. sci. math., astron, et  
 phys., 1958, 6, No 12, 781-783  
 Abstract : An investigation was made of spectra of absorption  
 and fluorescence of solutions of eosine in glucose,  
 prepared at different boiling temperatures of the  
 solution at various pressures. The dependence of the  
 absolute yield of fluorescence of these solutions on  
 the wave length of the exciting light was measured.  
 The fluorescence spectra do not depend on the boil-  
 ing temperature of the solution (at which the

Card 1/2

- 123 -

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28454

K

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413520017-8

solution is prepared), and the absorption spectra dis-  
 play a change in the ratio of the monomer and dimer: with increasing  
 boiling temperature, the contents of the monomer in-  
 creases; dimerization is hindered by the high viscosi-  
 ty of the glucose. As the temperature is increased,  
 the yield of the fluorescence due to the monomer in-  
 creases. The results obtained make it possible to  
 proposed that the eosine does not form complexes with  
 glucose, as was observed for fluorescein (Referat  
 Zhur Fizika, 1959, No 5, 11670). The character of  
 the drop of the fluorescent yield in the anti-Stokes  
 region as a function of the temperature of prepara-  
 tion of the solution is in agreement with the hypo-  
 thesis of Foerster and Jablonski, that this drop is  
 due to absorption by non-luminescent dimers. -- V.P.  
 Klochkov

Card 2/2

FRACKOWIAK, D.; MARSZALEK, T.

Yield of fluorescence and spectra of chlorophyll in viscous media.  
 Bul Ac Pol mat 8 no.10:713-717 '60.

Department of Experimental Physics, Nicholas Copernicus University,





FRACKOWIAK, D.; MARSZALEK, T.

Yield of anti-stokes fluorescence of chlorophyll. Bul Ac Pol nat 9  
no.1:53-55 '61.

1. Department of Physics, Nicolas Copernicus University, Torun. Pre-  
sented by A. Jablonski.

(Fluorescence) (Chlorophyll)

FRACKOWIAK, D.; KAMINSKA, M.

Influence of chlorophyll aggregation on its short-wave band.  
Bul Ac Pol mat 10 no.11:601-603 '62.

1. Department of Physics, N. Copernicus University, Torun.  
Presented by A. Jablonski.

FRACKOWIAK, D.

The yield of fluorescence of chlorophyll a. Bul Ac Pol  
mat 11 no.8:561-566 '63.

1. Department of Physics, N. Copernicus University, Torun.  
Presented by A. Jablonski.

FRACKOWIAK, D.; KOLTUN, S.

Absorption anisotropy of some organophosphors. Acta physica Pol  
23 no.6:685-694 Je '63.

1. Physics Department, Nicholas Copernicus University, Torun.

FRACKOWIAK, D.

Spectra of chlorophyll  $\alpha$  in various media. Bul Ac Pol mat 12  
no.2:119-124 '64.

1. Department of Experimental Physics, N. Copernicus University,  
Torun. Presented by A. Jablonski.

FRACKOWIAK, Danuta

Luminescence of chlorophyll. Postepy fizyki 14 no. 5:549-567  
'63.

1. Pracownia Fotoluminescencji, Uniwersytet im. M. Kopernika,  
Torun.

FRACKOWIAK, D.

Yield of fluorescence of chlorophyll. Acta physica Pol 26  
no.3/4:517-518 S-O '64.

1. Department of Physics, N. Copernicus University, Torun.



FRACKOWIAK, D.; TRUMPAKAJ, Z.

Polarization of fluorescence of chlorophyll  $\alpha$ . Bul Ac Pol mat  
12 no.3:183-187 '64

1. Department of Physics, N. Copernicus University, Torun. Presented  
by A. Jablonski.

POLAND / Cultivated Plants. Plants for Technical Use. M  
Oil Plants. Sugar Plants.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24979

Author : Frackowiak, F.

Inst : Not given

Title : Results of the Experiments with Different  
Varieties of Long Fiber ["Dolgunetz"] Flax  
in 1951-1953

Orig Pub : Roczn. nauk rolniczych, 1957, A77, No 3,  
401-437

Abstract : Experiments were conducted according to the  
block method, in a six-fold repetition, on  
19 experimental districts in various soil-  
climatic conditions of the country. The  
largest harvest of straw and fiber was pro-  
duced by the varieties LCSD 210, Kotevetskiy

Card 1/2

ZWOLINSKI, Jerzy; FRACKOWIAK, Janusz; SZEREMETA, Ewa

Length of life and causes of dying and culling farm horses in the Poznan Province. Roczniki wyz szkola rol Poznan 17:271-288 '63.

1. Department of Specific Animal Breeding, College of Agriculture, Poznan.

AUGUSTYN, Wladyslaw; FIRLUS, Leonard; FRACKOWIAK, Kazimierz

Studies on the reaction of alumina with ammonium hydrofluoride.  
Przem chem 39 no.5:255-260 My '60.

1. Instytut Chemii Nieorganicznej, Politechnika Slaska, Gliwice

FRACKOWIAK, Milosz, mgr.inz.

Influence of the bar keel and the bilge keels upon the rolling parameters. Bud okretowe Warszawa 7 no.6:176-180 Je '62.

1. Katedra Teorii Okretow, Politechnika, Gdansk.

MACKOWIAK, Damian, mgr inz.; Frackowiak, Milosz, mgr inz.

Stabilizing fins and their influence on the stabilization  
of ship rolling. Bud okretowe Warszawa 9 no. 1:12-15 Ja'64.

1. Instytut Morski, Gdansk (for Mackowiak) 2. Katedra  
Teorii Okretu, Politechnika, Gdansk (for Frackowiak).

FRACKOWIAK M.

K-6

POLAND/Optics - Luminescence

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 21503

Author : Frackowiak M.

Inst : Not Given

Title : Further Investigations on the Decay of Phosphorescence of Rigid Solutions.

Orig Pub : Bull. Acad. polon. sci., 1957, cl. 3, 5, No 8, 809-812

Abstract : The author investigates the applicability of the simplified model of luminescent center, consisting of an initially excited luminescent molecule, located inside an active sphere. All centers are separated into groups, and one group contains the centers with a specified number of perturbing (initially unexcited) molecules within the active sphere of a given center. The author examines the curves of decay of phosphorescence in rigid solutions for yellow and orange acridine dyes on a gelatine base at dye concentrations (mole/liter) of 0.232, 0.303, and 0.405 for yellow and 0.020, 0.028, 0.048, and 0.061 for orange dyes respectively. From

Card : 1/2

59

FOLAND/Optics - Luminescence

K-6

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 21503

a comparison with the theoretical relations that follows from the Jablonski theory (Referat Zhur Fizika, 1956, No 6, 5325; 1957, No 6, 15650), the author determines the value of  $\nu = nv$ , where  $n$  is the number of luminescent molecules/cubic cm, and  $v$  is the volume of the active sphere. The thus calculated values of the radius of the active sphere are found to be practically independent of the concentration of the luminescent particles, (22.6, 22.2, and 22.1 Å for the above three concentrations of acridine yellow and 29.4, 33.3, 31.3, and 31.3 for the acridine orange). The results obtained confirm the applicability of the adopted simplified model of active center for the description and interpretation of the decay curves of phosphorescence of rigid solutions and the correctness of the applicability of the Smoluchowski distribution in the determination of the relative probabilities of the center belonging to a definite group at a given concentration of luminescent molecules.

Card : 2/2

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413520017-8"

FOLAND/Optics - Luminescence

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 21502

Author : Frackowiak Mieczyslaw  
Inst : Institute of Physics, Torun, Poland  
Title : Decay of Phosphorescence of Rigid Solutions.

Orig Pub : Acta phys. polon., 1957, 16, No 1-2, 63-78

Abstract : The author investigates the decay curves of phosphorescence components, polarized parallel and perpendicular to the electric vector of the exciting white linearly-polarized light. The investigated gelatine phosphors are activated by acridine yellow or acridine orange in different concentrations. The measurements were made at room temperature in a setup similar to the ring phosphoroscope, with a speed of motion of the phosphor of 1476 cm/second, and an excitation time of  $1.35 \times 10^{-4}$  seconds. The decay curves were measured in an interval from  $3.38 \times 10^{-4}$  to  $5 \times 10^{-3}$  seconds from the instant of cessation of the excitation. The glowing phosphor was photographed with the aid of a camera and this was followed by

Card : 1/3



POLAND/Optics - Luminescence

K-6

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 21502

photometry. The decay curves, in accordance with the theory of Jablonski (Referat Zhur Fizika, 1957, No 6, 15650) can be represented in the form of a superposition of exponential functions, corresponding to different decay constants, and the same lifetimes appear in both parallel and perpendicular components of fluorescence. It is concluded that in the investigated phosphors the probability of migration of the excitation energy is much greater than the total probability of transition with omission of phosphorescence. The different lifetimes correspond to different groups of luminescent centers, which differ from each other by the number of neighbors in the sphere of action of a given excited molecule, and consequently have different probabilities of migration of energy and glow of fluorescence. The connection between the limiting degree of polarization and the average lifetime of different groups of phosphorescent centers is investigated. The change in degree of polarization of the total phosphorescence with time, at different stages of decay, is connected with

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.FOLAND/Optics - Luminoscence

K-6

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 21502

the emission of light from the corresponding different groups of phosphorescent centers. The process of depolarization in each group of centers occurs within a time that is less than  $10^{-6}$  seconds.

Card : 3/3

Frackowiak, M.; Heldt, J.

Investigation of an organophosphor in the pre-excited state. In English. p. 93.

ACTA PHYSICA POLONICA. (Polska Akademia Nauk. Komitet Fizyki).

Warszawa, Poland, Vol. 18, no. 2, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 8, August 1959.  
Uncla.

FRACKOWIAK, M.

✓ Emission anisotropy of photoluminescence of acridine yellow in gelatin in the preexcited state. M. Frackowiak, J. Grzywacz, and J. Heldt (Inst. Fizyki P.A.N., Torun, Poland). *Bull. acad. polon. sci., Sér. sci. Math., astron. et phys.* 7, 295-300 (1959) (in English).—Emission anisotropy,  $r$  (Jabłoński, CA 53, 14085f; 52, 7851d) was examd. within the photoluminescence band of 5100-700 Å. by the visual method with Arago compensator, Savart plate, and Nicol prisms, for acridine yellow in gelatin phosphors pre-excited with natural and plane polarized daylight for 0, 5, 10, 15, or 20 min. Preexcitation diminished  $r$ . Results are discussed in terms of superposition of luminescence bands of distorted and undistorted luminescence centers (J. CA 59, 10540f). J. Stecki

gt.

5

FRACKOWIAK, M.; TACZANOWSKI, A.

On a method permitting measurement of the partition of temperature on the surface of thermionic cathode planes of very small dimensions. Bul Ac Pol mat 8 no.4:255-258 '60.

1. Institut d'Electronique Industrielle, Varsovie. Presented by A. Jablonski.

(Mensuration) (Temperature) (Cathode ray tubes)

P/045/60/019/02/08/013  
B006/B011

AUTHORS: Frackowiak, M., Waleryś, H.

TITLE: Decay of Phosphorescence of Trypaflavine in Gelatin

PERIODICAL: Acta Physica Polonica, 1960, Vol. 19, No. 2, pp. 199-215

TEXT: The authors wanted to investigate whether tryptaflavine has more than one metastable level. For this purpose they examined the absorption spectra and decay curves of phosphorescence of tryptaflavine in gelatin as a function of the pH-value of the aqueous tryptaflavine solution in which the gelatin was dyed. The experiments were made under the following conditions: velocity of displacement of the phosphor:  $1155 \pm 60$  cm/sec. Duration of excitation:  $2.16 \cdot 10^{-4}$  sec; the decay curves were taken  $2.76 \cdot 10^{-4}$  sec after excitation stopped, and lasted for  $10^{-2}$  sec. The time of exposure was 30 sec; all measurements were made at room temperature. The phosphor was excited with plane-polarized white light. Both components were investigated throughout the entire band of luminescence. The preparation of the phosphors and of the tryptaflavine solutions is described; data on the solutions

Card 1/3

Decay of Phosphorescence of Trypaflavine  
in Gelatin

P/045/60/019/02/08/013  
B006/B011

investigated are given in Table II. Fig. 1 shows the extinction coefficients as a function of the wavelength. All these curves have the same area, i.e., the "total intensity of absorption" is the same. Fig. 2 shows the curves of the absorption band of tryptaflavine in gelatin - the tryptaflavine concentrations were determined from them (Table II). The following Figs. (3 to 8) show the decay curves of the parallel and perpendicular intensity components of the phosphorescence of tryptaflavine in gelatin. These curves were found to depend on the pH-value of the tryptaflavine solution. These decay curves and their expansion into simple exponential functions can be theoretically explained by assuming that the tryptaflavine molecule has only one single metastable level, and by taking account of the pre-extinction effects observed. The authors finally thank Professor Doctor A. Jabłoński for discussions. P. P. Feofilov, S. Y. Vavilov, M. D. Galanin, G. M. Kislak, T. P. Kravits, A. L. Pyeskina, Z. V. Zidkova, V. L. Levshin, E. G. Baranova, V. A. Pilipovich, B. J. Sveshnikov, I. M. Rozman, and A. A. Shishlovski are mentioned. There are 8 figures, 3 tables, and 46 references: 18 Soviet, 6 Polish, 8 German, 6 French, 2 Japanese, 3 American, and 1 British.

Card 2/3

Decay of Phosphorescence of Trypaflavine  
in Gelatin

P/045/60/019/02/08/013  
B006/B011

ASSOCIATION: Photoluminescence Laboratory (Toruń) of Institute of Physics  
of Pol. Acad. Sci.; Physics Department, M. Kopernik University,  
Toruń

SUBMITTED: July 1, 1959

VC

Card 3/3



FIUTAK, J.; FRACKOWIAK, M.

The HgA Van der Waals molecule. Bul Ac Pol mat 11 no.4:175-180 '63.

1. Department of Theoretical Physics, Nicholas Copernicus University, Torun, and Department of Experimental Physics, Nicholas Copernicus University, Torun. Presented by A. Jablonski.

FRONKO LAK, M.

Absorption spectra of chlorophyll  $\alpha$  at low temperature. *Bull Ac Pol*  
12 no. 6:357-359 '64

Radical association in  $C^3$   $\Pi$ u state of  $^{15}N_2$ . *Ibid.*:361-367

1. Department of Physics, N. Copernicus University, Torun.  
Proposed by A. Jablonski.

FIUTAK, J.; FRACKOWIAK, M.

The HgA Van der Waals molecule. Acta physica Pol 26  
no.3/4:353 S-O '64.

1. Department of Physics, N. Copernicus University, Torun.

L 43816-66 EWP w) IJP(c) WW/EM  
ACC NR: AT6030223 (N) SOURCE CODE: PO/2545/65/000/007/0003/0050

AUTHOR: Frackowiak, M.

ORG: Department of Theory of Ships (Katedra Teorii Okretow)

TITLE: Damping calculation of rolling of ships

SOURCE: Danzig. Politechnika. Zeszyty naukowe, no. 72, 1965, Budownictwo okretowe, no. 7. Prace instytutu okretowego, 3-50

TOPIC TAGS: vibration damping, ship, motion stability

ABSTRACT: In recent years there are tendencies toward calculating a ship's stability properties on the basis of its motion in rough seas rather than in calm seas. These calculations require the determination of the damping coefficient with an accuracy sufficient for practical engineering purposes. Existing methods either show significant discrepancies in calculated results, or are applicable only to special types of vessels. The present study is an attempt to provide a method of calculation applicable to all types of vessels under various operating conditions. The method is based on results derived from damping experiments with free oscillating model ships in still water. Particular attention has been paid to the model scale effect. The method can be applied for calculating the damping coefficient of ship hulls with normal appendages. Orig. art. has: 52 formulas, 14 figures, and 2 tables. [GE]

SUB CODE: 13/ SUBM DATE: 19Dec64/ ORIG REF: 004/ OTH REF: 012/ SOV REF: 024/  
Card 1/1 fv ATD PRESS: 5075

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Inst : Institute of the Flax Fiber Industry.

Title : A Rapid Chemical Method for the Determina-  
tion of the Flax Fiber's Impurities.

Orig Pub : Prace inst. przen. wlokien lykow, 1957, 5,  
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Abstract : A method for the determination of fiber  
(F) impurities consisting of fiber dis-  
solution in  $H_2SO_4$  was developed. The results  
of the determination corresponded closely  
with those obtained by manual checking, but

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saved a great deal of time. -- From the  
author's resume.

Card : 2/2

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